

REMARKS

The paper is in response to the Office Action mailed April 9, 2010 ("the Office Action"). The foregoing amendment cancels claims 1-28, 30, 31, 37, 53-54; amends claims 29, 32-36, 38-52, and 55-59; and adds new claims 60-70. Claims 29, 32-36, 38-52, and 55-70 are now pending in view of the amendments. Applicants respectfully request reconsideration of the application in view of the above amendments to the claims and the following remarks. For Examiner's convenience and reference, Applicants present remarks in the order that the Office Action raises the corresponding issues.

In connection with the prosecution of this case and any related cases, Applicants have, and/or may, discuss various aspects of the disclosure of the cited references as those references are then understood by the Applicants. Because such discussion could reflect an incomplete or incorrect understanding of one or more of the references, the position of the Applicants with respect to a reference is not necessarily fixed or irrevocable. Applicants thus hereby reserve the right, both during and after prosecution of this case, to modify the views expressed with regard to any reference.

Please note that Applicants do not intend the following remarks to be an exhaustive enumeration of the distinctions between any cited references and the claims. Rather, Applicants present the distinctions below solely by way of example to illustrate some of the differences between the claims and the cited references. Finally, Applicants request that Examiner carefully review any references discussed below to ensure that Applicants' understanding and discussion of any reference is consistent with Examiner's understanding.

Unless otherwise explicitly stated, the term "Applicants" is used herein generically and may refer to a single inventor, a set of inventors, an appropriate assignee, or any other entity or person with authority to prosecute this application.

Examiner's Interview

Applicants thank Examiner for the telephone interview of July 27, 2010. The amendments and remarks herein reflect the substance of the interview.

Rejection under 35 U.S.C §103(a)

The Office Action rejects claims 29, 32, 33 and 43-56 under 35 U.S.C §103(a) over *Tamaru* (U.S. Patent Publication No. 2002/0059320) in view of *Yang-Huffman* (U.S. Patent Publication No. 2003/0110252).

The Office Action rejects claims 34-36 and 57-59 under 35 U.S.C §103(a) over *Tamaru* (U.S. Patent Publication No. 2002/0059320) in view of *Yang-Huffman* (U.S. Patent Publication No. 2003/0110252) in further view of *Uhler et al* (U.S. Patent Publication No. 2001/0039587).

The Office Action rejects claims 38-42 under 35 U.S.C §103(a) over *Tamaru* (U.S. Patent Publication No. 2002/0059320) in view of *Yang-Huffman* (U.S. Patent Publication No. 2003/0110252) in further view of *Soderberg et al* (U.S. Patent No. 6,519,626).

Under 35 U.S.C §103(a), "[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." According to MPEP §2142, "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." Finally, MPEP 2141.III notes that:

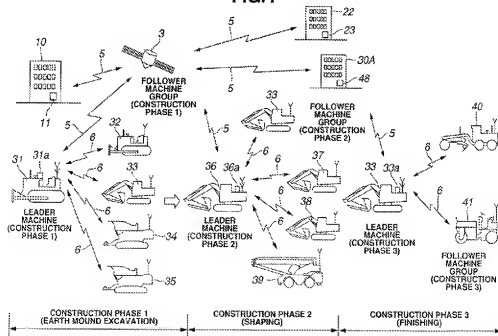
"The key to supporting any rejection under 35 U.S.C. 103 is the *clear articulation of the reason(s) why the claimed invention would have been obvious*. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "[R]jections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396." (emphasis added)

Claim 29 has been amended to make clear the context and functional differences of the networking performed on the claimed civil engineering, landscaping, road or rail link construction or mining work site from traditional networking performed in other environment,

such as within offices and homes. In addition, claim 29 has been amended to more clearly specify the communication between both mobile (e.g. earth moving bulldozers) and static items of apparatus (e.g. survey or stationary GPS equipment) on such worksite. Claim 29 incorporates information found in the preamble into the body to further define, in the body of the claim, that the claim is directed to features of networking particular to a civil engineering, landscaping, road or rail link construction, or mining worksite. The amendments to claim 29 also include acts of communication with a specific static device, such as surveying equipment or equipment for assessment of geographical information, in addition to communication with earth moving mobile devices, such as a bulldozer.

As shown in Figure 4 (below) of *Tamaru* the leader machines 31, 33, 36 receive management information from a server via satellite 3. An operator of the leader machine controls follower machines based on the management information received. In fact, *Tamaru* indicates that direct viewing by the operator is crucial to ascertain the progress of the job (*see* para. 76) but the Applicant is unable to find a teaching or suggestion in *Tamaru* of a worksite hierarchical communication arrangement that includes both a mobile earth moving networked item of apparatus in addition to a networked static network item of apparatus.

FIG.4



Moreover, claim 29 has been amended to further include the element, "each networked mobile item of apparatus and networked static item of apparatus being capable of communication with any other networked mobile and static item of apparatus within communication range of its communications interface". (Emphasis added). Claim 52 has been amended similar to claim 29 in this regard. This amendment is directed to the aspects that each of the mobile and static apparatuses communicate amongst themselves on the worksite in a peer-to-peer manner. *Tamaru*, for example, does not contain any implicit or explicit teaching of a direct communication between any of the networked items other than the master-slave environment between the operator controlled leader work machines and the slave (operator controlled) work machines. For example, *Tamaru* does not teach or contemplate slave-slave communication where each work machine with a communications interface can communicate information with any other work machine within range of its communications interface.

In fact, *Tamaru* appears to teach away from such communication in paragraph 75 where *Tamaru* teaches that a limitation of data communications is desired. And, in *Tamaru*, only two separate communication stages are taught, one for office communication with the operator and one from the operator to the follower machines. Communication between two followers or two operators is not taught or suggested.

Therefore, at least for these reasons, the Applicant respectfully requests that the rejections of claims 29 and 52 be withdrawn. Claims 32-36, 38-51 and 60 depend from claim 29; and claims 55-59 depend from claim 52. If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As such, claims 32-36, 36-51, 55-60 are believed to be allowable in at least for the reasons set forth above as well.

New claim 61 has been added and defines a second hierarchy in addition to the first hierarchy. At most, *Tamaru* only discloses one hierarchical level. That one level is the master-slave or leader-follower levels. The multiple hierarchies cited in the Office Action are related to the possible successive changes in the role of an apparatus, wherein in different stages of the construction process, different machines can obtain the leader-role. In contrast thereto, the third

proposed claim set uses more than one hierarchical level. The dependent claims added which depend from claim 61 define what these additional levels can refer to. For example, the first level can be a mobile/static designation. The second level can define a type of mobile or static machine is defined at that first level. And, the third level can define a device under control by the type of machine defined by the second level, such as a motor or lift controlled by that device. The Applicant respectfully asserts that this organization of the work site devices in the present invention is not taught or suggested by the prior art.

Claim 61 also specifies that the second hierarchical level defines what type of machine is associated thereto. For example, is the mobile device a bulldozer or a dump truck? While *Tamaru* defines the role of the machines as either operator-follower, there is no discussion in *Tamaru* as to the definition of different types, themselves, of mobile and static devices as embodied in a hierarchical level within a stored address, or within multiple hierarchical levels.

Therefore, for at least these reasons, claim 61 is believed to be allowable. Claims 62-65 depend from claim 61 and are believed to be allowable at least for the same reasons as claim 61.

Claim 66 has been added and is directed to a request for position information of a worksite device and is discussed at least with reference to Figure 10. According to this claim, a table is kept up-to-date by requesting the position information of the various devices, which themselves keep track of their position, for example using GPS sensors. In *Tamaru*, for example, the use of direct viewing is envisioned (see paragraph 76 and paragraph 22 in the background) as opposed to electronic position tracking of the various networked devices.

Therefore, claim 66 is believed to be allowable at least for these reasons. Claim 67 depends from claim 66 and is believed to be allowable at least for the same reasons as claim 66.

Claim 68 has been added and specifies that the device address includes, e.g. is encoded with, information which identifies the context of that device alone. Thus, each device associated address is unique to that networked item of apparatus. In this way if apparatus A receives a

communication for apparatus B it is clear from the communication that this information is intended for apparatus B not apparatus A. And, as such, apparatus A can ignore this communication, or relay the communication onto apparatus B for example when apparatus B is out of range to a central communications tower but not out of range to apparatus A as discussed in the specification.

At least for these reasons claim 68 is believed to be allowable. Claims 69 and 70 depend from claim 68 and are believed to be allowable at least for the same reasons as claim 68.

Charge Authorization

The Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to Deposit Account No. 23-3178: (1) any filing fees required under 37 CFR § 1.16; (2) any patent application and reexamination processing fees under 37 CFR § 1.17; and/or (3) any post issuance fees under 37 CFR § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefor and charge any additional fees that may be required to Deposit Account No. 23-3178.

CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are allowable. In the event that Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview or overcome by an Examiner's Amendment, Examiner is requested to contact the undersigned attorney.

Dated this 30th day of July, 2010.

Respectfully submitted,

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